

Notice of Allowability

Application No.

09/600,787

Examiner

Samuel W Liu

Applicant(s)

JARMAN ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 6/2/04, 8/13/03 and 1/16/03.
2. ☒ The allowed claim(s) is/are 1,2,4-6 and 14-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed 2 June 2004 has been entered. Note that the references cited in the PTO 1449 form of IDS filed 13 August 2003 have been considered by examiner (see the communication letter mailed 1 March 2004).

This Office action is in response to (i) applicants' amendments filed 13 August 2003 which amends claims 1-2 and adds claims 14-18, (ii) applicants' amendemnt filed 16 January 2003 which cancels claim 3 and amends claim 1, and (iii) applicants' petition for extension of time of one month filed 13 August 2003. The amendments and the petition indicated above have been entered.

The pending claims 1-2 and 4-18 are therefore examined in this Office action.

EXAMINER'S AMENDMENT

An Examiner's Amendment to the record appears below. Should the change and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no latter than payment of the Issue Fee.

Authorization for this examiner's amendment was given in a telephonic interview with Gerard J. McGowan, Jr. on September 23, 2003.

Amendments to the specification:

The abstract has been amended as follows:

Anti-freeze protein comprising at least 40% of the amino acids serine, threonine and asparigine and having at least 80% of sequence identity with the amino acid sequence of SEQ ID NO:1 as well as modified forms thereof.

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The amended abstract has been placed in the separate sheet and attached with this Examiner Amendment (see the attachment).

In page 18, line 9, change "FPLC" to "fast performance liquid chromatography (FPLC)".

In page 19, line 30, change "SDS PAGE" to "sodium dodecylsulphate Polyacrylamide gel electrophoresis".

In page 20, line 7, change "PVDF" to "polyvinylidene fluoride (PVDF)".

In page 20, line 8, change "CAPS" to "3-(Cyclohexylamino)-1-propanesulfonate (CAPS)".

In page 20, line 16, change "-20 OC" to "- 20 °C".

Amendments to the claims:

In claim 1 (*twice amended*), change "overlap with" to "sequence identity to".

In claim 4 (*twice amended*), change "the overlap" to "the sequence identity".

In claim 5 (*twice amended*), change "the overlap" to "the sequence identity".

Delete claims 7-13.

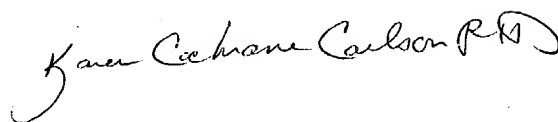
In claim 15 (*amended*), change "naturally occurs in a plant" to "is derived from a plant and"; and change "Serine, Threonine and Asparagine" to "serine, threonine and asparagine".

Conclusion: claims 1-2, 4-6 and 14-18 are allowable over the art of record.

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Wei Liu, Ph.D. whose telephone number is (571) 272-0949. The Examiner can normally be reached daily except alternate Fridays from 8:30 A.M. to 5:30 P.M. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jon Weber, can be reached at (571) 272-0925. The official fax number for Technology Center 1600 is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.



KAREN COCHRANE CARLSON, PH.D.
PRIMARY EXAMINER



Samuel W. Liu, Ph.D.
Art Unit 1653, Examiner
September 10, 2004

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ABSTRACT

Anti-freeze protein comprising at least 40% of the amino acids serine, threonine and asparagine and having at least 80% of sequence identity with the amino acid sequence of SEQ ID NO:1 as well as modified forms thereof.